

C 8127 - I-90 - Snowshed to Keechelus Dam Phase 1C - Replace Snowshed and Add Lanes

Q & A # 8, June 2, 2011

Question #	Reference & Page #	Question	Response
79	Special Provisions, Pages 288-295	<p>Our questions are regarding the Plenum structure. In the specs starting on page 289, it talks about the design and then goes on to talk about 3 sided structures. Whereas the contract drawings clearly show a box culvert section. Our questions are as follows:</p> <p>1.) Is a 3 sided structure acceptable for the plenum structure, providing it's designed to and meets all the design criteria?</p> <p>2.) Would the state accept alternate design for the plenum structure, again providing it's designed to and meets all the design criteria?</p>	<p>1.) In the Special Provisions under the heading "Design Criteria", lines 28 to 30 on Page 289 state "... plenum structure shall be precast rigid frames with monolithic corners internally reinforced ...", which indicates a four sided structure. The Contractor may be mistaking the Three Sided Structures under Shop Drawings. In the Special Provisions from Page 288, line 1 to Page 295, line 5, there are three reoccurring headings for which the content is meant to be kept strictly separate and distinct from each other. These headings are "Precast Reinforced Concrete Three Sided Structures", "Portal Headwall of Lake Keechelus Snowshed Repl." (or "Portal Headwall" or "Precast Portal Headwall"), and Precast Reinforced Concrete Plenum Structure(s)".</p> <p>2.) It is normal procedure during construction for WSDOT to review an alternative design proposed by the Contractor in order to to evaluate whether the alternative meets the design criteria and other requirements.</p>
80	Plan Sheets 82, 83, 95, 96, 279, 280, and 520-523, and Special Provisions, Pages 187, 188, and 190	Existing Barrier on Sheet 83 being moved to location on Sheet 96 and the same thing happens on Sheet 82 versus Sheet 95. I don't see where this barrier is being paid for or where the quantities are shown.	The existing barrier is paid for once under "Removing Conc. Barrier" as described on Pages 187, 188, and 190 of the Special Provisions, and the quantity is shown on Plan Sheets QT1 and QT2 (Sheets 279 and 280). The moving of the temporary barrier is paid for in the structure notes of each detour stage. If during a stage the final roadway is built, barrier is shown on the pavement marking sheets, with structure codes, and quantities are shown on Plan Sheets QM1 - QM4 (Sheets 520-523).
81	---	Sheets 95, 96, and 97 shows barrier gaps and this is where the quantity is shown on Sheets QM1 - QM4 (Sheets 520-523) as permanent barrier. Are there supposed to be barrier gaps in the permanent barrier?	Yes, there are barrier gaps in the permanent barrier at these locations.

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82	Plan Sheets 99-103, 137A, 137B, and 138-147, and Special Provisions, Pages 154-160	Sheet 99, Winter Shutdown - Stage 2, shows existing barrier. How does the barrier get paid for and where is the quantity for this barrier located?	<p>On Sheets 99 - 103, Winter Shutdown - Stage 2, the detour alignment used for Stage 3 (DE13) is being used as the winter shutdown configuration and is built prior to the end of Season 3 during Stage 2. On Sheets 137A, 137B, and 138 - 147, Winter Shutdown - Stage 4, the detour alignment for Stage 5 (DW15) is being used and is built prior to the end of Season 5 during Stage 4.</p> <p>Sheets 99 - 103 have a note which currently states "FOR DE13 ALIGNMENT INFORMATION SEE DETOUR ALIGN/SITE PREP - STAGE 3 PLANS". This note will be changed in an upcoming addendum along with the note on each of Sheets 137A, 137B, and 138 - 147. The new note for Sheets 99 - 103 reads, "SEE STAGE 3 PLANS FOR THE CONSTRUCTION OF THE DE13 LINE, INCLUDING BARRIER PLACEMENT". And the new note for Sheets 137A, 137B, and 138 - 147 reads, "SEE STAGE 5 PLANS FOR CONSTRUCTION OF THE DW15 LINE, INCLUDING BARRIER PLACEMENT".</p> <p>In the "Order of Work" Special Provision on Pages 154 - 160, each stage is assigned to the season or seasons in which the work for that stage is anticipated to be performed. However, stages may not necessarily begin and end when the seasons begin and end. Each stage, along with its associated detour traffic configuration, begins and ends when the work to be accomplished in that stage begins and ends.</p>
83	---	Who owns the Hyak Lodge behind the Hyak maintenance area?	WSDOT is the current owner of the Hyak Lodge.

C 8127 - I-90 - Snowshed to Keechelus Dam Phase 1C - Replace Snowshed and Add Lanes

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84	---	Is the Bid opening still good for June 15?	No, the Bid opening is extended to June 22.
85	Special Provisions, Page 152	How does the final roadway get built through the Snowshed?	<p>After girder placement in Stage 4, traffic is shifted back to the Stage 3 alignment to allow paving of the two hillside lanes and shoulder of the final WB roadway through the Snowshed. This is described in Addendum No. 1, Item 24 which updates Page 159, lines 17 through 22 of the Special Provisions.</p> <p>In Stage 5, traffic is shifted over onto Pier 1, WB on final pavement and EB temporary pavement in the middle. This allows paving of the two lakeside lanes and shoulder of the final EB roadway.</p> <p>Next, the site specific TCP shows paving in the median to complete the final EB and WB median lanes and shoulders through the Snowshed.</p>

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86	---	Does WSDOT have core samples of the 1C project that contractors can look at?	<p>Yes. WSDOT has retained the rock cores for the contractors to view. If a contractor wants to view either a core or photographs of a core they need to contact the Materials Laboratory in Tumwater; however, select core photographs are also available on the "For Contractors - I-90 Project Information" web page located at: http://www.wsdot.wa.gov/Projects/I90/SnoqualmiePassEast/I90contractorinfo.htm</p> <p>At this web page select "1C Roadway Appendix B – Rock Core and Test Pit Photographs" (167 pages) under "Phase 1C Roadway Geotechnical Engineering Report", and "1C Rock Slope Appendix D – Core Photographs" (168 pages) under "Phase 1C Engineering Report".</p> <p>The cores are stored offsite and will need to be retrieved. A contractor can view the rock core photographs and then target specific boxes that they want to see. It is quite an effort to retrieve all the core boxes. The contact information for the Materials Laboratory is as follows:</p> <p>WSDOT Materials Laboratory 360.709.5468 1655 S. Second Ave. Tumwater 98512</p>
87	Special Provisions, Page 337	Can you please verify whether or not it is required to use an oscillator to install the drilled shafts on this project? Multiple plan and spec sheets mention the use of an oscillator to install the drilled shafts but are somewhat unclear on whether or not it is required. Could you please verify?	The Special Provisions on Page 337 require rotating or oscillating the casing for installation of the shafts at the Snowshed, Slide Curve Bridge, and Wall 23. WSDOT is not requiring an oscillator for the drilled shaft work at other locations.

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88	Plan Sheets 752 and 753 (Sheets BA12 and BA13)	Plan Sheet BA12 (elevation views) and BA13 (section "F" and "G") show permanent (slip casing) to be installed at all piers in the top 12' or so. Permanent slip casing can only be installed if temporary casing is used when installing the drilled shaft since the permanent slip casing is literally slipped inside the temporary casing between the temp casing and the drilled shaft cage. Neither the Plans or the specs show any temporary casing required on the Slide Curve shafts. Will there be a forthcoming addendum which will show that temp casing is required on the Slide Curve Bridge shafts in the portion above the rock so the permanent slip casing can be installed?	There are revisions coming out in an upcoming addendum.
89	Addendum No. 5	We haven't received Addendum No. 5 yet. Is WSDOT going to extend the June 22 opening?	The Bid opening is scheduled for June 22, 2011.
90	Special Provisions, Page 362	Where is the gradation spec for structural earth walls located.	The Special Provisions on Page 362, lines 14 -16, state that the backfill material within the reinforced zone shall conform to Section 9-03.14(1), except that the maximum particle size for walls with geogrid reinforcement shall not exceed 1-1/4 inches.
91	---	We are having trouble reconciling the "Soil Excavation For Shaft Including Haul" and "Rock Excavation For Shaft Including Haul" numbers for Keechelus Snowshed. We have confirmed that we are taking our volume values from the AR6 bench.	In an upcoming addendum, quantities for "Soil Excavation For Shaft Including Haul", "Rock Excavation For Shaft Including Haul", and "Furnishing & Placing Temp. Casing for 8'-0" Dia. Shaft" will be updated for the Lake Keechelus Snowshed Repl.
92	Plan Sheet 694	In regards to Plan Sheet 694 (Sheet W23-8), shaft and permanent ground anchor schedule, is the ground anchor design force indicated representative of the force per ground anchor or force per shaft?	The ground anchor design forces shown in the schedule are per anchor, not per shaft.

C 8127 - I-90 - Snowshed to Keechelus Dam Phase 1C - Replace Snowshed and Add Lanes

Q & A # 8, June 2, 2011

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93	Plan Sheets 940 and 955	<p>On Plan Sheet 955 (Sheet BG120), the elevation detail shows temporary casing for shafts S1 to S5 and S38 thru S43 extending to the top of the shaft, which is 8 feet above the construction joint (the transition in the shaft and where the column steel begins). The access bench (AR6) for the shaft installation is shown approximately 1 foot above the construction joint, or approximately 7 feet below the top of shaft. Also, as highlighted on Plan Sheet 940 (Sheet BG105), the shafts will have to be installed before the backfill behind the shaft caps can be placed. Given that the shafts must be installed using oscillated temporary casing, the temporary casing will be removed up to the construction joint (which is 8 feet below the top of shaft) at the time of the shaft concrete placement. This means some type of shoring will be required to be in place to form the 8 foot diameter transition portion of the shaft from the construction joint up to the top of shaft/ bottom of column elevation. If the intent is to leave casing in place to form the shaft from the construction joint to the top of shaft then a permanent casing (i.e., casing other than the oscillator casing) will have to be left in place to facilitate the transition portion of the shaft to be poured. Currently there is no bid item to cover permanent casing for the shafts where this situation occurs. What will be used as a form to build the portion of the shaft/column which is above ground? Will it be a temporary form, temporary casing, or permanent casing?</p>	<p>It is up to the contractor to determine whether they want to use permanent casings or a temporary form to build the column portion above grade. The contractor should pick a method and include it in the cost of work.</p>

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Q & A # 8, June 2, 2011

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94	---	How does the rockfall fence/barrier (MRB) come, in sections/panels or is it in a Roll?	The individual cable net panels are stored in rolls; however, MRB components also include 6700 lb steel plates and 600 lb steel posts. The MRB components are listed in the document obtained from the link "Movable Rockfall Barrier (MRB) - Assembly and Drawing" on the "For Contractors - I-90 Project Information" web page located at: http://www.wsdot.wa.gov/Projects/I90/SnoqualmiePassEast/I90contractorinfo.htm
95	---	If the entire 180 feet is not needed for an MRB, can they be shortened or do we install the entire length?	We generally require that the MRB extend at least ~50 ft beyond the work zone, so that gets you to a minimum length of 100 ft. If the contractor actually wants to do any work without constantly having to move the MRB, it's probably impractical to have anything less than the full 180 ft.
96	---	When butting two MRB fence ends together, each fence end has a base plate, post, and tension wire. Is it alright to use a common plate and post where the fences seam together and have the tension wire come off in both directions?	No. The MRBs were designed as independent systems. If you look at how the lateral tie downs terminate on the edge of the plates, you can envision the problem with having two MRBs butt together. That said, contractors have come up with various schemes to use multiple systems in sequence. WSDOT will work with the contractor in the field in order to evaluate whether such proposed alternatives or schemes meet the design criteria and other requirements.